

**IN IDEAL CONDITIONS**

# ARLIS II BENG EVACUATED IN GREENLAND ICE PACK

Evacuation of ARLIS II, the drifting arctic research ice island, was expected to begin Saturday. ARLIS II is manned by the University of Alaska operated Arctic Research Laboratory (ARL) for the Office of Naval Research.

When the island is abandoned it will have completed a four-year journey of more than 4,000 miles, climaxed recently when it penetrated farther south into the Greenland Sea than any manned ice station in history.

The Navy icebreaker USS EDISTO Wednesday was 72 nautical miles south of the island, travelling slowly through the "relaxed" ice which surrounds ARLIS II. Relaxing ice is pack ice which is not under great pressure and is not forming new ridges.

"Conditions of the pack ice for such an evacuation are now more

ideal than at any time since 1918," said ARL director Max Brewer, expects the evacuation to go smoothly without unusual problems.

Originally the ARL intended to evacuate the island by air, but the hard-packed snow air strip, softened as ARLIS II drifted south, making landings impossible. Wednesday ARLIS II was less than 200 miles from the northwest coast of Iceland, at 67° 48.2' N and 23° 47' W. It is not in danger of breaking up soon.

The floating arctic laboratory was first manned in May 1961, about 130 miles north of Point Barrow, shortly after it was discovered by Brewer. Since then, it has meandered eastward across the Arctic Basin, a straight distance of about 1500 miles. Many twists and turns and doubling back of the island

(Continued on Page 5)

# Ice Island Evacuation . . .

(Continued from Page 1)

as it followed the current considerably extended the journey.

In mid-January of this year the island made a dramatic turn southward into the Greenland Sea and since has drifted about 540 miles almost due south.

The only previous manned ice station to traverse the Greenland Sea was a Russian station, NP-1, which made the trip in 1937-38. However, NP-1 was an ice floe, which is smaller and less stable than an ice island. It had to be abandoned at 70 degrees latitude. ARLIS II is already more than 100 miles beyond that point. Scientists estimate that the island will have drifted another 70 miles southward by the time that it is evacuated.

Aboard the island are 19 people, including 12 scientists. The ice-breaker will take them to Keflavik, Iceland, from where they will be flown to this country.

Several radio beacons will be left behind on the island so that its continued drift southward can be traced. The island will drift for another month or so before it breaks out of the ice pack into the open waters of the northern Atlantic, scientists believe.

ARLIS-II's drift through the Greenland Sea provided this country with its first opportunity to study in detail this relatively unknown geographic area. The Greenland Sea is particularly significant to the Navy since it provides the major deep water access route for submarine into the Arctic Ocean. It is also scientifically important because it includes the broad transition zone where cold arctic waters mix with the warmer Atlantic waters.

The evacuation will end five major scientific programs which have been conducted the past four years by relays of scientists from five institutions. These are the Navy Oceanographic Office, the University of Wisconsin's Geophysical and Polar Research Center, the University of Southern California, the University of Washington, and Japan's Hokkaido University, with all of the work supported by ONR. Their research has included detailed studies and observations of the pack ice, geophysical investigations, including

gravity measurements, marine biology, meteorology, and physical and chemical oceanography.

Three special research programs were conducted during the island's drift through the Greenland Sea. These include a study of ocean bottom heat flow, a program for obtaining accurate measurements of currents, and the testing of a new precise VLF (very low frequency) navigation system.

Since the use of the EDISTO marked the first time that an ice-breaker has operated in the Greenland Sea during the winter months, special oceanographic studies were made aboard the ship by scientists from the Navy Oceanographic Office while the EDISTO awaited the evacuation call.